

Notes on Loricata, 6-7¹

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6. A NEW ISCHNOCHITON FROM BRAZIL

In 1955 Mr. H. de Souza Lopes (Instituto "Oswaldo Cruz", Rio de Janeiro, Brazil) sent me a small alcohol collection of chitons which were dredged off the Brazilian coast. An additional sample, qualified as "poor" by its sender, contained 45 dried and curled up specimens of *Ischnochiton* of which 44 proved to be *I. striolatus* (Gray, 1828). One specimen could not be identified as it differs from all living species of *Ischnochiton* as far as I was able to trace. I take pleasure in naming this new species after its collector.

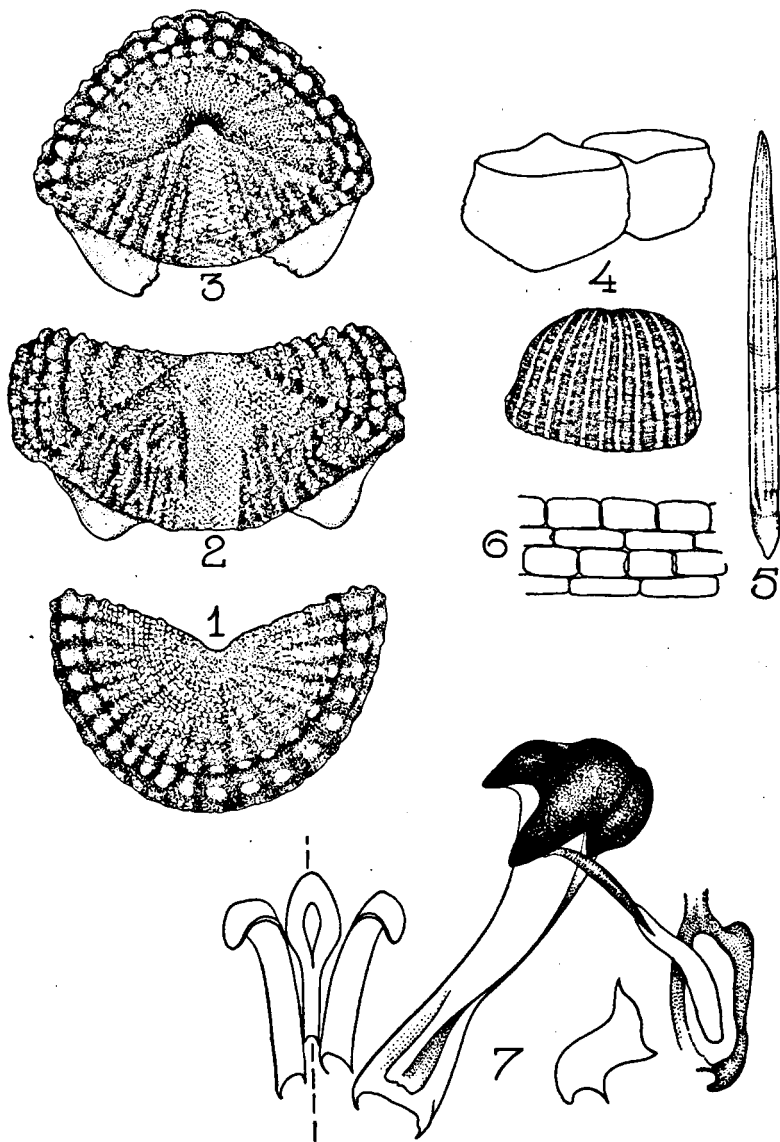
Ischnochiton lopesi sp. n.

(figs. 1-7)

Camburiú, Sta. Catarina, Brazil, 2.II.1954, 1 specimen (holotype) dried and curled up, H. de Souza Lopes leg., in Rijksmuseum van Natuurlijke Historie, Leiden.

Animal elongate oval, rather depressed, valves not beaked, only weakly carinate, lustreless. All valves rather roughly granulose all over, granules roundish, somewhat convex, more or less arranged in quin-cunx. Colour brownish, mixed with lighter greyish and shades of green; inside bluish white, dull. Insertion plates well developed, smooth, with 12-1-9 inequidistant slits, slit-rays distinctly punctured, eaves solid.

The head valve (fig. 1) is about semi-circular, with two or three concentric rows of roundish, irregular tubercles near the margin, separated by 18-20 shallow radiating grooves.



Figs. 1-7. *Ischnocbiton lopesi* sp. n., Camburiú, Sta. Catarina, Brazil, H. de Souza Lopes leg., holotype (Rijksmuseum van Natuurlijke Historie, Leiden). 1. Head valve. 2. Valve VI. 3. Tail valve (figs. 1-3: 9 x). 4. Girdle scales (150 x). 5. Marginal spicule (180 x). 6. Ventral girdle scales (107 x). 7. Part of the radula (245 x).

Lateral areas of the intermediate valves (fig. 2) markedly raised, sculptured with concentric rows of tubercles separated by rather deep grooves, the tubercles dentating the sutures. Pleurae of central area with semi-parallel longitudinal granulose riblets, often branching or splitting up, separated by rather wide grooves; jugal area smooth, except for granulation covering the whole valve.

Tail valve (fig. 3) rather flat, mucro blunt, central; posterior slope slightly concave; ante-mucronal area sculptured like central areas of intermediate valves, although the longitudinal riblets are more regular and not branched, post-mucronal area sculptured like head valve. The apophyses are somewhat triangular, white, separated by a wide sinus.

Girdle rather narrow, dorsally covered with small brownish imbricating scales (fig. 4), ca. $110 \times 90 \mu$, distally broadly rounded, with about 11 narrow ribs, the interstices much wider, decidedly pitted. There is a marginal fringe of elongate white calcareous spicules which are finely longitudinally grooved, about 140μ long, 12μ wide (fig. 5). Ventrally the girdle is covered with rectangular flat scales arranged in transverse rows (fig. 6). There are two types of scales in alternating rows: short and wide ones measuring $35-40 \times 25 \mu$, and longer and narrower ones of about $50-55 \times 15 \mu$.

The radula (fig. 7) has a simple narrow minor lateral tooth, distally strongly curved forward, without a cusp; the major lateral tooth has a strong tridentate cusp, the spatulate uncinus a slender slightly curved shaft and a long and sharp curved cusp.

Length ca. 16 mm, width ca. 6 mm.

7. ON THE TYPE OF THE GENUS ISCHNOCHITON GRAY, 1847

In 1847 J.E. Gray (1847a: 126) established the genus *Ischnochiton*, giving the following diagnosis:

"Valves thin; posterior valve entire; the plates of insertion very thin, smooth-edged, of the central valves each with a single notch; margin covered with very small imbricate scales."

The genus was subdivided into a group (*) "scales of mantle transversely grooved", and one (**) "scales of mantle minute, granule-like."

In the first group the author enumerated four species: "*Cbitor texilis*, Gray = *Cbitor longicymba*, Blainv."; "*Cbitor limaciformis*"; "*Cbitor Magdaliensis*, Hinds." (emend. = *C. magdalenensis*), and "*Cbitor alatus*, Sow." In the second group he placed *Cbitor marginatus*, Montagu = *Cbitor cinereus*, Lowe. Apparently Gray overlooked the fact that in 1821 (p. 234) he had created a genus *Lepidochitona* for this well-known Linnaean species.

That Gray intended to designate the first mentioned species, *Ischnochiton textilis*, as the type of the genus is clear from his subsequent publication (1847b: 168) in which he only mentioned *I. textilis* as an "example" of genus 410 *Ischnochiton*, Gray 1847.

Ashby (1931: 36), who studied a cotype of *I. textilis*, showed that the insertion plates of the intermediate valves have two slits on each side and placed it in the subgenus *Radsiella* Pilsbry, 1892.

Mr. A.G. Smith of the California Academy of Sciences (San Francisco) informed me in a letter dated 24 November 1972 that some years before he had an opportunity to study Gray's type lot in the British Museum (Natural History) and was allowed to have a cotype X-rayed, which also revealed the bislit nature of the median insertion plates.

This leaves the genus *Ischnochiton* without a type species. Of the other species Gray originally mentioned only *Chiton limaciformis* Sowerby, 1832 has the articulamentum of the intermediate valves unislit, but Carpenter (in Dall, 1878) created a subgenus *Stenoplax* for it. However, Gray mentioned "*Chiton longicymba*, Blainv." as a synonym of *I. textilis*. This is not the *Chiton longicymba* of Blainville (1825: 542, now *Stenochiton longicymba*), but that of Sowerby (1839, f. 67) and subsequent authors to Pilsbry (1892). *Chiton longicymba* of Sowerby is now acknowledged to be identical with *Chiton crispus* Reeve, 1847 (pl. 19 sp. & fig. 120) from Australia (Port Jackson, New South Wales), according to Iredale & Hull (1924: 230). It is now called *Ischnochiton elongatus* (Blainville, 1825) subsp. *crispus* (Reeve, 1847).

This is a true *Ischnochiton* in the sense of Gray's definition. As the taxon *Ischnochiton* has been in general use for a long time and comprises a large group of Loricata it would not be wise to follow Van Belle's suggestion to accept the name *Simplischnochiton* Van Belle, 1974 for the unislit *Ischnochiton* species (type of the genus *Simplischnochiton*: *I. maorianus* Iredale, 1914, new name for *Chiton longicymba* Quoy & Gaimard, 1834, non Blainville, 1825).

In my opinion all difficulties will be cleared away by designation of *Chiton crispus* Reeve, 1847 as the type of the genus *Ischnochiton* Gray, 1847.

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